APPENDIX B
PENDING CLAIMS AFTER ENTRY OF THE AMENDMENT

1. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) the nucleotide sequence as set forth in SEQ ID NO: 1;

(b) a nucleotide sequence encoding the polypeptide set forth in SEQ ID NO: 2;

(c) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of (a) or (b); and

(e) a nucleotide sequence complementary to any of (a)-(c).

2. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide that is at least about 70, 75, 80, 85, 90, 95, 96, 97, 98, or 99 percent identical to the polypeptide set forth in SEQ ID NO: 2, wherein the encoded polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(b) a nucleotide sequence encoding an allelic variant or splice variant of the nucleotide sequence as set forth in SEQ ID NO: 1;

(c) a nucleotide sequence of SEQ ID NO: 1; (a); or (b) encoding a polypeptide fragment of at least about 25 amino acid residues, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(d) a nucleotide sequence of SEQ ID NO: 1, or (a)-(c) comprising a fragment of at least about 16 nucleotides;

(e) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of any of (a)-(d); and

(f) a nucleotide sequence complementary to any of (a)-(c).

3. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with at least one conservative amino acid substitution, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(b) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with at least one amino acid insertion, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(c) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with at least one amino acid deletion, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(d) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 which has a C- and/or – terminal truncation, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(e) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with at least one modification selected from the group consisting of amino acid substitutions, amino acid insertions, amino acid deletions, C-terminal truncation, and N-terminal truncation, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(f) a nucleotide sequence of (a)-(e) comprising a fragment of at least about 16 nucleotides;

(g) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of any of (a)-(f); and

(h) a nucleotide sequence complementary to any of (a)-(e).

4. A vector comprising the nucleic acid molecule of claims 1, 2, or 3.

5. A host cell comprising the vector of claim 4.

6. The host cell of claim 5 that is a eukaryotic cell.

7. The host cell of claim 5 that is a prokaryotic cell.

8. A process of producing a huE3α polypeptide comprising culturing the host cell of claim 5 under suitable conditions to express the polypeptide, and optionally isolating the polypeptide from the culture.

10. The process of claim 8, wherein the nucleic acid molecule comprises promoter DNA other than the promoter DNA for the native huE3α polypeptide operatively linked to the DNA encoding the huE3α polypeptide.

11. The isolated nucleic acid molecule according to claim 2 wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTP, BLASTN, FASTA, BLASTA, BLASTX, BestFit, and the Smith-Waterman algorithm.

46. A composition comprising a nucleic acid molecule of claims 1, 2, or 3 and a pharmaceutically acceptable formulation agent.

47. A composition of claim 46 wherein said nucleic acid molecule is contained in a viral vector.

48. A viral vector comprising a nucleic acid molecule of claims 1, 2, or 3.

59. (Amended) A diagnostic reagent comprising a detectably labeled polynucleotide encoding the amino acid sequence set out in SEQ ID NO: 2; or a fragment, variant or homolog thereof including allelic variants and spliced variants thereof.

60. The diagnostic reagent of claim 58, wherein said labeled polynucleotide is a first-strand cDNA.

61. A method for determine the presence of huE3α nucleic acids in a biological sample comprising the steps of:

(a) providing a biological sample suspected of containing huE3α nucleic acids;

(b) contacting the biological sample with a diagnostic reagent according to claim 59 under conditions wherein the diagnostic reagent will hybridize with huE3α nucleic acids contained in said biological sample;

(c) detecting hybridization between huE3α nucleic acid in the biological sample and the diagnostic reagent; and

(d) comparing the level of hybridization between the biological sample and diagnostic reagent with the level of hybridization between a known concentration of huE3α nucleic acid and the diagnostic reagent.

62. A method for detecting the presence of huE3α nucleic acids in a tissue or cellular sample comprising the steps of:

(a) providing a tissue or cellular sample suspected of containing huE3α nucleic acids;

(b) contacting the tissue or cellular sample with a diagnostic reagent according to claim 59 under conditions wherein the diagnostic reagent will hybridize with huE3α nucleic acids;

(c) detecting hybridization between huE3α nucleic acid in the tissue or cellular sample and the diagnostic reagent; and

(d) comparing the level of hybridization between the tissue or cellular sample and diagnostic reagent with the level of hybridization between a known concentration of huE3α nucleic acid and the diagnostic reagent.

63. The method of claim 59 wherein said polynucleotide molecule is DNA.

64. The method of claim 59 wherein said polynucleotide molecule is RNA.